ADVANCES IN MATHEMATICS 19, 421 (1976)

Book Reviews

H. RADJAVI AND P. ROSENTHAL, *Invariant Subspaces*, Springer, 1973, 219 pp. Complete and yet textbook-like. The authors have done an admirable job in bringing together the disparate trends in this difficult and far from closed chapter of mathematics.

V. KARRAS, M. KRECK, W. D. NEUMANN, AND E. OSSA, *Cutting and Pasting of Manifolds; S K-Groups*, Publish or Perish, 70 pp. Technical but captivating exposition of a difficult new subject.

P. B. GILKEY, *The Index Theorem and the Heat Equation*, Publish or Perish, 125 pp. Self-contained exposition, including a brief but clear exposition of the calculus of pseudo-differential operators. Includes several very recent results.

J. MARSDEN, *Applications of Global Analysis in Mathematical Physics*, Publish or Perish, 273 pp. This book successfully covers what the title announces, and gives in addition an illuminating introduction to quantum mechanics from several points of view. A useful companion to Mackey's classic.

F. HOYLE, J. V. NARLIKAR, *Action at a Distance in Physics and Cosmology*, Freeman, 1974, 266 pp. A polished version of lecture notes, this book gives an out-of-the-beaten-track approach to some problems of contemporary physics in a language which a mathematician can decipher without excessive effort.

B. DE FINETTI, *Probability, Induction and Statistics*, Wiley, 1972, 266 pp. A collection of retouched papers by the founder of Bayesian statistics. Suggested to the mathematician with philosophical inclinations.

S. I. RUBINOW, *Mathematical Problems in the Biological Sciences*, SIAM, 1973, 90 pp. This report of a regional NSF Conference serves only to underscore how far removed mathematics still is from where the action is in the life sciences.

V. POENARU, *Groupes Discrets*, Springer, 1974, 216 pp. Limited scope but clear exposition of results of Stallings and others. Unusually good for Springer Lecture Notes.

C. J. PRESTON, *Gibbs States on Countable Sets*, Cambridge, 1974, 128 pp. Mathematical arteriosclerosis is not uncommon among probabilists. Here is the first thorough exposition of a new horizon of stochastic processes, all the way to the mysteries of phase transition.

S. FLÜGGE, *Practical Quantum Mechanics*, Springer, 1974, 287 pp. Quantum mechanics without tears, and best of all, without irrelevancies. Some mathematicians may wonder why physicists are to a man so notationally conservative as to cling to redundant and grotesque symbolism after 70 years of functional analysis.

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